

Statement of Work
Vasquez Boulevard / Interstate-70 Superfund Site Operable Unit-2
Time-Critical Removal Action

I. Purpose

The purpose of this Statement of Work ("SoW") is to describe the general content of the Work required to be performed by the City and County of Denver ("Respondent") pursuant to the Agreement and Covenant Not to Sue the City and County of Denver ("Agreement"), and activities related to the Agreement and Work Plan to be performed by Respondent.

The Work entails design and implementation of the "environmental components" of an open channel stormwater drainage feature through Operable Unit #2 of the VB/I70 Superfund Site that is intended to reduce flooding in the Montclair Drainage Basin area and address stormwater management needs associated with projects being developed by Regional Transportation District (RTD), Colorado Department of Transportation (CDOT), and Respondent. A conceptual plan and cross-section of the segment of the stormwater channel of interest, which lies on property owned by the Respondent, are illustrated on Figures 1 and 2, respectively.

The "environmental components" to be addressed by this Removal Action consist of: 1) management and disposal of waste material and visually-impacted soils; 2) management and, if necessary treatment and/or disposal, of dewatering liquid during construction; and 3) design and construction of an impermeable barrier system to prevent any contaminants remaining onsite from adversely impacting stormwater retained within and conveyed by the open channel system, as well as prevent stormwater infiltration into contaminated media remaining onsite.

The Respondent shall also define and implement environmental protection measures needed to protect human health, groundwater, surface water, air, and soils from potential impairment caused by excavation through and downgradient from Operable Unit #2. This shall include: 1) preparation and implementation of a Removal Action Work Plan (RAWP) containing a Sampling and Analysis Plan (SAP), a Quality Assurance Project Plan (QAPP), a Materials Management Plan (MMP), a Health and Safety Plan (HASP), and Progress Reporting procedures; 2) implementation of the RAWP; 3) progress reporting; 4) a pre-Final inspection; and 5) preparation of a Construction Closeout Report. In addition, if requested by EPA, Respondent shall assist EPA with community relations. Details of these activities are discussed below.

II. Work to Be Performed

The Time Critical Removal Action ("TCRA") Memorandum, dated <insert date>, defines the activities that shall be completed to reduce risk to human health and the environment at the Site. The Work to be performed consists of:

1. Management of Waste Material and Visually-Impacted Soils

Several constituents of concern have been identified in the waste material and visually-impacted soils that may impact handling and disposal of the material. They include volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), arsenic, lead, and potentially friable asbestos. Concentrations of most of these

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constituents are sufficiently low such that most of the material may be managed as a RCRA non-hazardous solid waste. Respondent will dispose all RCRA non-hazardous material, including material containing friable asbestos, at the Denver Arapahoe Disposal Site (DADS) under disposal certificates issued by landfill operator. Respondent will manage RCRA hazardous material as hazardous waste and will treat and/or dispose of such material at a RCRA-licensed Subtitle C treatment, storage, or disposal facility (TSDF). Respondent will address criteria and protocols for management and disposal of all material in the Materials Management Plan.

2. Management of Contaminated Groundwater

Historic groundwater sampling has detected VOCs and metals above Colorado Basic Standards for Groundwater and Surface Water. As necessary, groundwater collected during construction dewatering will be treated prior to release to a receiving stream or transported offsite for treatment and disposal. Respondent shall address criteria and protocols for collection, treatment, and disposition of these liquids, as well as any other liquid that comes in contact with the waste material or visually-impacted soil, including washout and decontamination liquids, in the Materials Management Plan.

3. Barrier System Beneath the Stormwater Channel

Respondent shall design and construct a barrier system, including an impermeable liner, to prevent contact between the remaining contaminated materials and groundwater, and stormwater conveyed by the open channel. The barrier system shall also include foundation material beneath the liner and protective material above the liner to ensure liner stability and protection. Respondent shall also design the system to account for historical groundwater flow patterns beneath and adjacent to the liner.

Respondent shall submit the following design documents related to the barrier system for EPA and CDPHE review:

- a. **Draft (50 percent) Design.** This submittal shall include the following:
 - Design Criteria
 - Results of additional field sampling and pre-design work
 - Draft plans, drawings, and sketches
 - Draft specifications
 - Project delivery strategy
 - Draft construction schedule
 - Draft construction cost estimate
- b. **Pre-Final (95 percent) Design.** This submittal shall refine and detail the Draft Design, with revisions addressing comments from EPA and CDPHE. Respondent shall include value engineering assessments. The submittal shall represent the best efforts at a complete design and include drawings,

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specifications, general conditions, a Basis of Design memorandum, an updated schedule, and an updated cost estimate.

- c. **Final Design.** This submittal shall include the complete and final barrier system design. All of the items required for the Draft design submittal, as well as modifications resulting from review of the Draft and Pre-Final design shall be included. Drawings, specifications, and general conditions shall be ready for procurement and implementation.

Respondent shall submit two copies of each design package to EPA and CDPHE for review and comment, and respond to comments in a letter format.

4. Removal Action Work Plan (RAWP)

- a. The RAWP shall describe the removal activities to be performed in accordance with the TCRA Memorandum. The RAWP shall discuss:

- Site background;
- Project organization;
- Site characterization;
- Scope of removal action activities to include discussion of:
 - Staging area,
 - Mobilization plan,
 - Site preparation,
 - Excavation of waste material and visually-impacted soils,
 - Treatment of waste material and/or visually-impacted soils, if necessary, prior to disposal,
 - Disposal procedures,
 - Management of groundwater during removal activities,
 - Stormwater management during removal activities,
 - Dust control measures,
 - Personnel and equipment monitoring and decontamination procedures, and
 - Other activities required to implement the removal action;
- Institutional controls;
- Anticipated community relations activities;
- Schedule of project deliverables with associated submittal dates and proposed construction schedule.

- b. Supporting deliverables to the RAWP shall include the following:

- Sampling and Analysis Plan (SAP) - The SAP shall be submitted in accordance with the National Contingency Plan (NCP), Section 300.415(b)(4)(ii) for removal actions. The SAP shall consist of two parts:

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- A Field Sampling Plan (FSP), which describes the number, type, and location of samples and the type of analyses; and
- A Quality Assurance Project Plan (QAPP), which describes policy, organization, and functional activities and the data quality objectives and measures necessary to achieve adequate quality for use in planning and documenting the removal action.
- Materials Management Plan (MMP) -- Respondent shall submit an MMP describing: 1) the testing, management and disposal requirements for waste material and visually-impacted soils; 2) requirements for management and treatment of and groundwater captured during construction dewatering operations; and 3) management of liquids and solids from design investigations, groundwater sampling, and equipment decontamination.
- Site Health and Safety Plan (HASP) -A Site HASP shall be developed in accordance with OSHA Standard 29 CFR Part 1910 and Part 1926.
- Monthly Project Reporting. Monthly reports required pursuant to Section V of the Agreement shall contain most of the information specified in Superfund Removal Procedures, Removal Response Reporting: POLREP and OSC Reports (EPA, 1994). The monthly report shall include the following sections: Section I - Heading, Section II - Background, Section III - Site Information, Section IV - Response Information, and Section V - Disposition of Wastes. Section I shall include date of report, site name, author of report, recipient of report, and number of report. Section II shall include site number, response authority, CERCLIS number, NPL status, Action Memorandum date, actual start date, demobilization date, and completion date. Section III shall include incident category (e.g., time critical, fund-lead, etc.), description of site, description of threat, and removal site investigation results. Section IV shall include description of contamination, cleanup standards, actions to date, and planned actions. Finally, Section V shall include a description of the waste, treatment process required prior to disposal, volume of treated waste, temporary storage, and final disposition of the waste. The template included as an appendix to this SoW shall be used for the monthly reports.

5. Implementation of the RAWP

Respondent shall implement the RAWP in accordance with the removal action activities and work schedule presented in the RAWP. Responsibilities for implementing the supporting documents shall be as follows:

- a. SAP and QAPP: Respondent shall implement these Plans directly.
- b. MMP and HASP: Respondent shall inspect the site activities for

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compliance with these Plans.

- c. Monthly Project Reporting: Respondent shall prepare the reports directly.

6. Pre-Final Inspection

Upon or near completion of the removal action, and before the submittal of the construction completion report, a pre-final inspection by EPA and CDPHE shall be arranged by the Respondent. Respondent shall document any "punch-list" items resulting from the inspection and work to address all punch-list items to the satisfaction of EPA, in consultation with CDPHE.

7. Construction Completion Report

Respondent shall prepare a construction completion report in accordance with Close-Out Procedures for National Priorities List Sites (EPA, 2000). This report, along with the Monthly Progress Reports, shall be used as the basis for development of the final Close-Out Report. The Construction Completion Report shall include the following chapters:

Section 1. Introduction: Include a brief description of the location, size, environmental setting, and operational history of the site. Describe the operations and waste management practices that contributed to contamination of the site. Describe the major findings and results of site investigation activities.

Section 2. Operable Unit Background: Summarize requirements specified in the ROD, ESD, and TCRA Memorandum for OU2. Include information on the cleanup goals, institutional controls, monitoring requirements, and other parameters applicable to the design, construction, operation, and performance of the removal action.

Section 3. Construction Activities: Provide a step-by-step summary description of the activities undertaken to construct and implement the remedy (e.g., mobilization and site preparatory work; construction of the treatment system; associated site work, such as fencing and surface water collection and control; system operation and monitoring; and sampling activities).

Section 4. Chronology of Events: Include significant milestones and dates, such as, design submittal and approval; ROD amendments or ESDs; mobilization and construction of the remedy; significant operational events such as treatment system/application start-up, monitoring and sampling events, system modifications, operational down time, variances or non-compliance situations, and final shut-down or cessation of operations; final sampling and confirmation-of- performance results; required inspections; demobilization; and completion or startup of post- construction operation & maintenance activities.

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Section 5. Performance Standards and Construction Quality Control: Describe the overall performance of the technology in terms of comparison to cleanup goals. For treatment remedies, identify the quantity of material treated, the strategy used for collecting and analyzing samples, and the overall results from the sampling and analysis effort.

Section 6. Final Inspection and Certifications: Report the results of the various inspections to include the pre-Final inspection, and identify noted deficiencies. If implemented, summarize details of the institutional controls (e.g., the type of institutional control, who will maintain the control, who will enforce the control).

Section 7. Summary of Project Costs: Provide the actual final costs and applicable year for the project. If actual costs are not available, provide estimated costs.

Section 8. Observations and Lessons Learned: Provide site-specific observations and lessons learned from the project, highlighting successes and problems encountered and how resolved.

Section 9. Operable Unit Contact Information: Provide contact information (names, addresses, phone numbers, and contract/reference data) for the major design and remediation contractors, EPA oversight contractors, and the respective RPM and project managers for EPA, the State, and the PRPs, as applicable.

Appendix A. Cost and Performance Summary

Supplemental Appendices. Place for maps, schematics, references.

8. Community Relations

Respondent shall assist EPA, if requested, in performing the community relations activities specified in Section 300.415(n) of the NCP.

References

EPA, 1994 (June). Superfund Removal Procedures, Removal Response Reporting: POL.REP and OSC Reports. Office of Solid Waste and Emergency Response (OSWER) Directive 9360-3-03, United States Environmental Protection Agency, Washington, D.C. 20460

EPA, 2000 (January). Close Out Procedures for National Priorities List Sites. OSWER Directive 9320.2-09A-P, EPA 540-R-98-016, United States Environmental Protection Agency, Washington, D.C. 20460

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PROGRESS REPORT template
Vasquez Boulevard and Interstate-70 Superfund Site Operable Unit -2

I. HEADING

Date: *(File each report by the tenth day of each month until demobilization completed)*
Site Name: Vasquez Boulevard / Interstate-70 Operable Unit-2
From: XYZ Consultants
To: Dania Zinner, USEPA Region 8, Oversight Manager
Progress Report No.: *(sequential numbered series of reports for ease in retrieval)*

II. BACKGROUND

Site No.: ###
Response Authority: CERCLA
CERCLIS No: CO###
NPL Status: Listed
Action Memo: TBD *(use date of final action memo authorizing this removal to be provided by USEPA)*
Start Date: TBD *(use effective date of Agreement governing this response action/to be provided by USEPA)*
Demobe Date: TBD *(use forecast date until demobe occurs then use that effective date)*
Completion Date: TBD *(use forecast date for delivery of final closeout report)*

III. SITE INFORMATION

A. Incident Category

Time Critical, Private-funded response.

B. Site Description

1. Site Location [below is an example of a typical description]

The Vasquez Boulevard and Interstate 70 (VB/I-70) Superfund Site is an approximately four square mile area located in the north-central portion of Denver, Colorado near the intersections of Interstate 70 and Interstate 25. OU2 consists primarily of the southern portion of the Denver Coliseum property (that portion of the Coliseum property located south of Interstate 70, which is owned by the Respondent), the Forney Transportation Museum property along Brighton Boulevard, the Pepsi Bottling Company property along Brighton Boulevard, and various other commercial properties located along Brighton Boulevard. The Removal Action involves primarily of the southern portion of Denver Coliseum parking lot and Globeville Landing Park, both of which are owned by the City

and County of Denver (CCoD).

2. Description of Threat

Arsenic and lead (but particularly lead) have been identified at the Site as the contaminants of concern (COCs). Arsenic and lead are hazardous substances, as defined by Section 101 (14) of CERCLA. The threats posed by this Site include dermal absorption; inhalation of contaminated dust; and the inadvertent ingestion of contaminated soil and surface water.

C. Remedial Investigation Results

Arsenic and lead were detected at levels greater than background and in some locations at concentrations greater than those consider acceptable for commercial/industrial land uses.

IV. PHYSICAL PROGRESS INFORMATION FOR THE RESPONSE

USEPA Region 8 has authorized contaminated soil and waste removal and installation of containment measures in those portions of the site where stormwater diversion structures are anticipated to be installed under a "time-critical" Removal Action memorandum.

A. Contamination:

Soil contaminated with lead and arsenic is present in both surface and subsurface soil. Solid waste is present in the subsurface beneath portions of the Denver Coliseum parking lot.

B. Cleanup Levels:

The action levels established for the Site are 800 milligrams/kilograms (mg/kg) for lead and 70 mg/kg for arsenic based on commercial land use as the reasonably anticipated land use for the site.

C. Removal Actions to Date:

(Here describe what has been accomplished since commencing the environmental remediation activities or since the last report)

D. Planned Removal Actions for Next Month:

(Here describe what you plan to accomplish by the next report)

E. Key Issues and Proposed Resolutions

(Describe any technical or regulatory compliance issues impacting your plans)

V. DISPOSITION OF WASTES

As of this date, a total of (*"reported quantity"*) tons/cubic yards of soil/waste has been disposed at the Denver Arapahoe Disposal Site.